A Publication of Waukesha County's Retzer Nature Center

Fall 2007

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Upcoming Events:

- Fall Native Plant Sale at Retzer, August 25
- Retzer Apple Harvest Festival, September 22
- Retzer Bird Seed Sale
- Basket Making Workshop
- Forest Ecology Workshop

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Prairie Packed and Delivered

Multiple surprises are packed in the configurations of a prairie. Finding the diminishing, almost extinct prairie areas becomes a surprise in itself. Midwestern prairies in Wisconsin that fringed the vast prairie area called the Great Plains have all but vanished. In fact, this day, the vast and unique Tall Grass Prairie hardly waves in the Midwestern landscape. Restoration now becomes the key word. It lends the way to renew this natural configuration, and release the surprises stored in a prairie package.

Prairie plants have always survived under harsh conditions. Hot and cold, fire and drought, winds and dust. Spring fires started by lightning would aid in the seasonal renewal of the prairie. Indians assisted in this operation, which activated seeds and buds hidden underground. Deep stolons of native grasses activated and sprang up from deeper roots. Fire is used today to help in the re-making of the prairie environment. Watching a prairie burn in early spring is exciting, and one is always surprised to see new green sprouts poke up from the soil within the week. Renewal of a patch of prairie, no matter how small, is welcomed progress.

The prairie yields several surprises. In the spring, the earliest package arrives when it is still cold. There may be snow yet on the ground. But if one wanders up the trail to the Vista, one may see the first delicate blooms of the Pasque Flower (*Anemone patens*). Soft furry buds and purple to white cups appear in clumps, and hug the ground within the drab surrounds of brown leaves and grass. Their beauty will surprise in March-April. They are sometimes called Wild Crocus or Windflower and the Pasque Flowers are always a welcomed sight after long winters. Another early bloomer in the prairie is *Geum triflorum*, or Prairie Smoke. This little plant has hairy stems with numerous basal leaves. Leaves can be up to 7" long and divided into many toothed segments. There are usually three flowers on each short stem. Flowers are tight nodding crimson globes, but the surprise come when the flower develops fruit. It trails soft 2" mauve plumes in the wind, that look like delicate puffs of smoke. One lucky enough to see this global performance will instantly know the flower is correctly named.

With the onset of summer, the prairie becomes activated in a surprise mode. Bouquets of many colors are packed in June, July and August. Puccoon (*Lithospermum canescens*) grows 8" to 12" tall with golden-yellow tube shaped flowers. Stems and leaves of this plant are covered with soft hairy down. Tickseed (*Coreopsis palmata*). another yellow beauty, has eight toothed rays in the flower head, long slender stems and leaves that are narrow and cut into three deep sections that remind one of a bird's foot. Coreopsis is called Tickseed because of its little black seed-like fruits that resemble ticks. Other yellow-hued flowers that will wave to you from the summer prairie are the Black-eyed Susan (*Rudbeckia hirta*) and the Yellow Coneflower (*Ratibida pinnata*). Both plants have petals or ray flowers. The coneflower, however, has droopy petals. Its flowers, with a little imagination, take on the shapes of badminton shuttlecocks.

Common in mesic and drier prairies, one of the tallest plants (sometimes reaching nine feet) can be found. It is also one of the largest-leaved plants of the prairie and a member of the Aster family. The yellow giant is called the Compass Plant (Silphium laciniatum).

Basal leaves of the plant are broadly triangular, at times over 1' long and deeply divided into narrow segments that may be divided once again. At the top of a long bristly stalk, several alternate green-bracted flower heads develop. Each head can be 3-5" wide with many yellow petal-like flowers surrounding a yellow center, a center with many sterile disk flowers. Looking at these prairie giants will always be an uplifting surprise for the eye!

As summer ambles along, the prairie peaks into multi-colored packaging. A special delivery is found in Purple Prairie Clover (*Petalostemum purpureum*). Purple-magenta flowers form a fringe around the base of ½" tall conical flowerheads. Each flower has a large petal and four smaller petals, with 5 protruding orange stamens—one breath-taking extravaganza. Prairie Clover

(Petalostemum candidum) is a white variety of the plant. It's not as flashy with pale colors, but always a delight to run into.

Common throughout a tallgrass region are the fragrant mints of Wild Bergamont (Monarda fistulosa). Lavender to pink-purple, their







- 1. Pasque Flower
- 2. Black-eyed Susan
- 3. Prairie Smoke
- 4. Purple Prairie Clover
- 5. Lead Plant
- 6. Puccoon
- 7. Side-Oats Grama
- 8. Little Bluestem
- 9. Wild Bergamont
- 10. Aster
- 11. Tickseed
- 12. Compass Plant
- 13. Yellow Coneflower
- 14. Big Bluestem
- 15. Tall Goldenrod

flowers in a terminal cluster resemble crowns, and they are adorned with royal colors. Wild Bergamont is often found in the company of Black-eyed Susans, butterflies and hummingbirds. The prairie becomes packed with energy of every color. Dense and stalked, spikelike clusters of grayish-purple flowers form the unusual Lead Plant (Amorpha canescens). Widely distributed in dry to mesic prairies, its dull color and white hairs covering its leaves do not help in making this plant a show stopper. The roots of the plant, however, are long and stringy and did stop early settlers in their plowing. It was also known as Praire Shoestring and, after much frustration, Devil's Shoestring. The redeeming quality of the Lead Plant is that it is impervious to drought.

Summer speeds into fall. Fall revs with surprise deliveries from the prairie. Prairie, by the wayside, is the French word for meadow. Early French explorers had never seen an expanse that looked like the Great Plains of North America. Their word for meadow came the

closest to describe what they saw, so prairie became what it was, and still is, and with growing interest in restoration, a prairie it will remain.











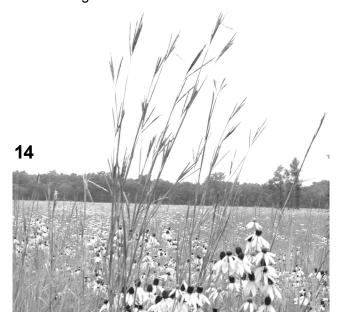








Needless to say, autumn's prairie is the place for hikers to set a pace. Its beauty is in the eyes of beholders. Big Bluestem (Andropogon gerardii), tallest of the prairie grasses, will be waving in the winds. The grass can be 8-9' tall. The seed head



branches into three parts, resembling a turkey's foot. Stout, round stems of the plant sometimes have sections of bluish or purplish color. Leaves of the Big Bluestem turn reddish bronze after a frost. Each hairy seed in the turkey foot has a long, twisted, bristle-like awn. Big Blue is a beauty before and after snowfall. Side-Oats Grama (Boutelous curtipendula) is another prairie grass that brings a surprise. A low grass that peaks at 3' grows in clumps or as solitary stems. Leaves are long and thin, and have hairs along the edges. Flower parts when blooming have right reddish-orange stamens. The grass is short but showy and flower clusters form two rows, which are usually along only one side of the upper stem. Order for their day—stay in formation! Little Bluestem (Schizachyrium scoparium) is a tight package of bunched grass, which grows in a dense cluster, with flowing stems reaching up to 4'. Leaves turn to a bronzed-orange hue after a frost. Stems are hairy with flowers scattered along upper parts of the vertical side stalks. With long hairs, they have a feathery appearance. A single, white-hairy flower cluster is at the tip of each stalk. Seeds have bristle-like awns. Little Bluestem is a major ground cover in dry-mesic prairies. Native prairie grasses, and there are many more to surprise you, will be in full sway during fall and winter seasons.

Dropping temperatures bring late prairie surprises. Asters are the flowers the Indian said brought on the

frost. They grace the prairie with last sweeps of color in the browning vegetation. So many species to identify when walking in late Fall. The aster come in an array of shapes, colors, and shades of the same color that will vary within the same species. The deep purple New England Aster (Aster novaeangliae) is the showiest. The plants can grow up to 6' tall and have hairy stems and alternate leaves. Individually stalked flower heads are in open, rounded clusters at the tops of main stem branches. Each head has 40 or more bright purple, lavender or white petal-like ray flowers that surround the central yellow disk. Many white asters are coarse in appearance and have sparse ray flowers, but the Frost Aster (A. pilosus) serves as an opposite example of a white aster. Their mass of tiny, 1/4" flower heads are so thickly clustered that they hide the stems and leaves. The Willow Aster (A. pracaltus), is 5' tall and grows in dense colonies. This aster has long narrow leaves and stems are hairy on the upper parts. Many flower heads are near the top, and form a tall, pyramid-like cluster. The 1" wide flower head has 20-40 white to pale lavender petal-like ray flowers that surround a yellow disk. Colonies of willow asters will attract attention in the open grasses. Their beautiful late blooms in the prairie will be remembered as the snow falls.



Yellow spears of Tall Goldenrod (Solidago canadensis), and other related goldenrods, also appear in the prairie at this time. Goldenrod is in the Aster family, and their members gather for

a last surprise parting in the tallgrass prairie. Prairie parcels for the year have been distributed. New prairie packages remain in cold storage, till spring.

See you on the trail,

Shirley Blanchard

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HEARTWOOD



Frog Serenade!

On Saturday, May 5th, the Friends of Retzer Nature Center held a marvelous event titled "Frog Serenade." About sixty loyal members assembled here for three hours of fun, food and drink — and to support the Friends in their fund-raising efforts for the new arbor, over the west patio. Well, thanks to their efforts, the arbor will be built — with construction scheduled for over the summer. And the mischievous and fun-loving spirit of the Frog Serenade event will be long-remembered!



Tree Frog

Like everything they do, the Friends developed this event with careful attention to detail, and with an eye to the full experience of each participant. A fund-raising auction, complete with professional auctioneer, would be the center-piece. A tasting of premium wines and cheeses, sponsored by Sendik's, would make for a delicious (and spirited) addition. A featured Planetarium show would give the event a cosmic feel. And then there was the Frog Serenade itself. Since nothing in nature is more evocative than the singing of springtime frogs, it was determined that I would present a light-hearted look at this romantic phenomenon, and at the singers themselves. Equal parts nature presentation and comedy routine, this program was intended to push the concept of painless education nearly to its breaking point. I think it succeeded (!), though the ultimate judges must be those who attended. In any event, I want to share (for your enjoyment and edification) the three program components used for this one-of-a-kind program. (See inserts.)

Have fun!

Larry

A QUICK GUIDE TO IDENTIFYING SOUTHEASTERN WISCONSIN FROGS

Spring Peeper



Tiny; brown, with "X" on its back; suction cups on its toes.

Pickerel Frog



Medium-sized; lots of square spots all over.

Chorus Frog



Tiny to small; dark brown with stripes; no suction cups on its toes.

Green Frog



Medium-sized; green.

Gray Tree Frog



Small; gray or green or? (can change color with surroundings); suction cups on its toes.

Bullfrog



🖥 Big; green.

Wood Frog



Small to medium-sized; brown with dark mask over its eyes, like a bandit.

American Toad



Medium-sized; brown; warty skin, not smooth like other frogs.

Leopard Frog



Medium-sized; lots of rounded spots all over.

"FROG CHORUS!"

—Spring Peepers

"Peep—peep—peep..." (High-pitched.)
"Tomatoes—tomatoes—tomatoes..."
(Fast and high.)

—Chorus Frogs

"Wrrank—wrrank—wrrank..." (Trill R's, like running a thumb or finger down a comb.)



—Eastern Gray Tree Frogs

"Woobwoobwoob—woobwoob— woobwoobwoob..." (High-pitched, like Curly of the Three Stooges.)

—Wood Frogs

"Lick it up—lick it up—lick it up..." (Sounds like ducks quacking—very early spring.)

—Leopard Frogs

"Brruup—brruup—bruup..."
(Low, back of throat—like rubbing a balloon.)

—Pickerel Frogs

(Soft inhaled snoring.)

—Green Frogs

"Glup—glup—glup..."
(Back of throat—like a loose banjo string.)
"Fried rice—fried rice—fried rice..." (Even tone.)

—Bull Frogs

"Jug o rum—jug o rum—jug o rum..." (Low, like a fog horn.)

—American Toad

(High trilled whistle, low voiced note, given simultaneously!)

-Mixed Chorus...

Fifteen Free Frog Facts, For Fun!

1 Frogs are members of the Phylum of Chordates, Subphylum of Vertebrates, Class of Amphibians, and Order of Anurans ("no-tail"). They belong to the Families of Toads (Bufonidae), Treefrogs (Hylidae), and True Frogs (Rani dae)!

2 As amphibians, frogs are tied to the water to reproduce—they lay large numbers of unprotected, un-shelled eggs in the water!

Frogs start life as a vegetarian fish-like larva stage (tadpole, polliwog) that has gills!

Tadpoles use food energy to go through a process of metamorphosis to become adults; they grow larger, develop front and back legs, absorb the tail into the body, and grow lungs!

Adults can go onto land, but they stay tied to the water. Their moist skin, which has an extensive supply of blood vessels, is the main breathing organ (the lungs are small in size)—but oxygen can only pass in through the skin if it stays moist. If it dries, it dies!

6 Like all amphibians, frogs are cold-blooded—their body temperature goes up and down with the surrounding environment. Frogs are only active during the warm seasons of the year!

In the fall, frogs bury themselves in the mud of the pond bottom. They hibernate through the winter in a state of very slow, very cool activity. Organic molecules dissolved in their body fluids may act as antifreeze, preventing them from freezing solid!

Most frogs have "double-camouflage" (counter-shading)—the color of their upper-side blends in with the surrounding vegetation of land or water...but their light-colored under-side blends in with the sky, when seen from beneath by hungry fish!

Frogs have bulgy eyes, that let them look for insect food above the water-line while hiding beneath it!

- **10** A frog's sticky tongue is attached in front, to flip out super-fast and catch insects!
- **11** Frogs have "skater-thighs" for leaping, and "diver-feet" for swimming!
- 12 Many tree frogs have "suction cups" on their toe tips—actually covered with tiny "fins" of skin that maximize surface area, and stick to surfaces using surface tension!
- **13** Some tree frogs can change their skin color, to blend in with their immediate background (we even had a Gray Treefrog turn silver, when it sat on the outdoor water faucet)!
- 14 The species-specific song of male frogs is irresistible to females of the species!
- 15 Frogs are considered the "miner's canary" for environmental change, world-wide. Their sensitive, un-protected skin makes frogs vulnerable to change in climate, chemical pollution of the air and water, increased penetration of ultra-violet light, and new disease organisms. The observed global decline in numbers of frogs needs to be a wake-up call to all of us!

The Last Prairie

To Burn an Acre

Our spring burn season here is just wrapping up, and the funny thing is that when you read this we will be

gearing up for fall burn season. Before and after (and sometimes even during) a burn, we often get questions about what is going on. People often ask how to conduct a prescribed fire. If igniting natural communities (safely) requires skill and hard labor, at least you can describe it in logical steps. First you plan, identify hazards and create firebreaks. Next, you contact the local fire departments and acquire the proper permits (you also notify them on your burn day). The day of the fire, the appropriate number of personnel gathers on site to discuss the plan, hazards and safety protocol. After everyone is at their post, you ignite on the downwind side, laying a line of fire that will back slowly into the wind. You make sure the other side goes out at the firebreak. After your backing fire has burned in enough to be safe (there's nothing like spent fuel for the best firebreak you can get), you begin drawing the fire up the sides or 'flanks'.



Controlled Burn

Once the flanks are in, you can suffer a wind shift or two as they are burning in and widening the effective size of the firebreaks on the sides. When there is enough blackened area from the backing and flanking fires, you can now light your headfire. This will burn more rapidly, traveling with the wind and preheating fuel as it goes. When it has all burned together, you survey your scorched patch of earth, make sure it is completely out, and decide what to do with the rest of your day. This

paragraph is not meant to be a how-to guide on burning, but it is good to have some background to help understand the more philosophical question about burning. Why do we do it in the first place?

We burn for many reasons. One is to make nursery plants look good for sale. Another is to help control brush in an herbaceous plant community, or even a woody one like a savanna. We also burn high quality areas, which are looking fabulous and don't necessarily look like they 'need' a fire. Why we burn regarding that lattermost example is the most involved, but the reason is directly linked to the other two 'practical' reasons.

The answers surrounding the ecology of fire will lead to a fun string of one-word questions. For example: We burn because the flora and fauna respond well. Why? Plants show stronger and better growth without the thatch/duff of last year. Why? They like the increased soil temperature and lower humidity close to the ground. Why? The plants and animals living here are adapted to fires. Why? Ever since the last glacier lobes receded (far enough to produce something close to our current climate), this area was likely frequently burned. Why? The first reason is lightning and the second is human. The tribes who lived here burned to keep the area open, and to drive game for hunting. Why? Well, lightning happens and the Native Americans liked that lifestyle. Why? The landscape was easier to walk through, hunt and see approaching friends or enemies. How do you know these fires occurred so frequently? This 9-word question calls for a new paragraph.

For over 3,000 years prior to European settlement, Native Americans used fire for encircling game, war and agriculture (Hoffman 2002). Lightning started some fires, but the burning by Native Americans was much more important to the ecology and makeup of the presettlement landscape (Packard and Mutel 1997). Much is not documented, but there are some accounts on record — "...the fires that have annually raged over the surface, often kindled purposely by the Indians, on their hunting excursions, have prevented that rapid accumulation of vegetable matter which is always found in deep shady woods where the fires do not so often penetrate" (Lapham 1999). This quote comes from a reprinting of Increase Lapham's 1846 book on Wisconsin, which covers just about everything (the entire title includes 23 words and many disciplines).

A different approach, when pondering historic fire frequencies, involves looking at the fire-dependent communities themselves. The simple fact that prairies and savannas existed indicates frequent burning. There are many preserved accounts of the first settlers and their impressions of the younger landscape. Written passages about vast expanses of rolling prairie are found on page 264 in The Vegetation of Wisconsin (Curtis 1987). We know today that without management, these areas quickly revert to forest and brush, and would do so even without the alien species now plaguing the state. The same was true in the 1800s. The earliest explorers traveling through the southern third of the state spoke of barren and treeless lands. Notes on these same areas show them covered with brush or young forests after the first settlements around 1830. The new occupants were encouraged to suppress these wildfires, while an increase in agriculture and roads created more protection (firebreaks) against uncontrolled burning. By the end of the land survey notes in 1860, much of the land in southern Wisconsin was already overgrown (Curtis 1987).

Some argue that this is an entirely human-altered landscape and therefore unnatural. We are not an exclusive item on this earth, but of it. We are just another mammalian species that is part of the environment. Technology makes us somewhat unique but we will never have the power to secede from the system. We like to think that our yards or subdivisions are outside the jurisdiction of nature — thus making every lawn-invading weed, garden-eating rabbit, turf-tunneling ground squirrel, home-invading mouse, deck-dwelling skunk and lily-eating deer an outright trespasser that should be dealt with accordingly. This is simply not true, nor will it ever be true no matter what we think (or think we know). I am not saying you shouldn't get rid of a mouse guest or fence your garden, just contemplate the idea that we're all in this together. We try to keep nature at bay, but we are nature. The sooner we realize this the sooner we respect and understand.

This digressive, philosophical ranting has gone on long enough. If you do not agree that humans were (and are for that matter) natural, the problem remains that we would have no idea what vegetative and animal structure would be here today without the human ignition of vegetation. To think it is as simple as looking at the nearby forests for a template is extremely arrogant. Our state has reached its present ecological balance over the course of three millennia, and we have a responsibility as stewards to continue that balance

where we still can. There are those who suggest we simply let succession take control, as this is a natural process and simply the way of things. I believe this to be an extreme disservice to native Wisconsin. Not every community needs regular burning, but there are those that do. The species that depend on the ecology of these areas now depend on us to preserve the structure of what little remains. This is why we burn. And we must burn what we can while we can; anything less would be uncivilized.

Mike

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Saturday, September 22 9:00a.m. to 5:00p.m.

*SEE PROGRAM FLYER FOR FURTHER INFORMATION

RETZER NATURE CENTER



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A Sincere Thanks to All...

The following individuals or groups have donated to Retzer Nature Center since the last issue of CENTER LINE. Their support is greatly appreciated.

- Robert Adams family, donaton to Legacy Forest in memory of Robert Adams
- Elmbrook Garden Club, cash donation
- Bette Hallam, cash donation
- Nancy Dross, cash donation in memory of Bob Bache-Wiig
- Mr. and Mrs. Kenneth Leenhouts, cash donation in memory of Robert Bache-Wiig
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- Betty Lou Tikalsky, cash donation in memory of Dorothy Waite
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